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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,919	04/08/2005	Robert Snell	R0620.70003US00	9957

23628 7590 04/27/2009  
WOLF GREENFIELD & SACKS, P.C.  
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BOSTON, MA 02210-2206

EXAMINER
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SCHILLINGER, ANN M

ART UNIT	PAPER NUMBER
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3774

MAIL DATE	DELIVERY MODE
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04/27/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,919	<b>Applicant(s)</b> SNELL ET AL.	
	<b>Examiner</b> ANN SCHILLINGER	<b>Art Unit</b> 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 33-71 is/are pending in the application.
- 4a) Of the above claim(s) 18-29 and 33-71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/29/05, 4/16/08</u>  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Election/Restrictions***

Applicant's election of Group I, claims 1-17, in the reply filed on 12/29/2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-17 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-25 and 51-68 of copending Application No. 10/343693. Although the conflicting claims are not identical, they are not patentably distinct

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from each other because both sets of claims describes a process for making polymeric product which includes reacting a multifunctional isocyanate, a polyol, and a chain extender.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagasaka et al. (US Pat. No. 5,628,944). Nagasaka et al. discloses the following of the claimed invention: process for making a polymeric product having a gradual variation in modulus through at least a portion of the product comprising the steps of: reacting a multifunctional isocyanate (col. 8, lines 61-67), a polyol (col. 2, lines 1-64), and a chain extender (col. 1, lines 61-67; col. 2, lines 8-14) where at least two reagents selected from these materials are intensively mixed to form a first and a second polyurethane, the first and the second polyurethanes having different stoichiometries and thermal histories (abstract; col. 1, lines 11-30, 41-67; col. 2, lines 57-64; col. 4, lines 29-44; col. 6, lines 16-25). The first and second polyurethanes are injected into a mold where polymerization may occur (col. 2, lines 14-30; col. 8, lines 45-60).

Nagasaka et al. discloses that the polyurethanes may be injected into the mold at different rates. The polyurethanes may be formed in the same or separate apparatuses, and may first go through an intermediate vessel before entering the mold (col. 2, line 19 through col. 3, line 40).

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Claims 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Rausch, Jr. et al. (US Pat. No. 3,642,964). Rausch, Jr. et al. discloses the claimed process of making a polymeric product having a gradual variation in modulus through at least a portion of the product comprising the steps of: reacting at least two reagents selected from, a multifunctional isocyanate, a polyol, a chain extender; continuously perturbing the two reagents (abstract); injecting the polyurethane into a mold for the polymeric product (col. 8, lines 40-45); passing the polyurethane through an extruder (col. 1, line 10 through col. 3, line 21); and thermally profiling the polyurethane during the reactive extrusion step (col. 8, lines 3-10).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaka et al. in view of Piotrowitz (US Pat. No. 5,271,118). Nagasaka et al. teach the method substantially as claimed, however, Nagasaka et al. do not teach simultaneously injecting the polyurethanes. Piotrowitz teaches an injection method for producing articles from multi-component plastics, such as polyurethanes, where the polyurethanes are injected simultaneously in col. 3, lines 67 through col. 4, line 5 for the purpose of improving the efficiency of the device's production. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to simultaneously inject the two polyurethanes of Nagasaka et al. in the mold in order to improve the efficiency of the device's production.

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Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaka et al. in view of Rausch, Jr. et al. (US Pat. No. 3,642,964). Nagasaka et al. teach the method substantially as claimed, however, Nagasaka et al. do not teach controlling the temperature of the intermediate vessels housing the polyurethanes. Rausch, Jr. et al. teaches an injection method for producing polyurethane articles where the polyurethanes are held in temperature-controlled intermediate devices in col. 7, lines 68 through col. 8, line 10 for the purpose of catalyzing the reactions of the multifunctional isocyanate, the polyol, and the chain extender. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to control the temperature of the intermediate vessels holding Nagasaka et al.'s polyurethanes in order to catalyze the reactions of the multifunctional isocyanate, the polyol, and the chain extender.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANN SCHILLINGER whose telephone number is (571)272-6652. The examiner can normally be reached on Mon. thru Fri. 9 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on (571) 272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. S./

Examiner, Art Unit 3774

/DAVID ISABELLA/

Supervisory Patent Examiner, Art Unit 3774